

SHOP TIPS

VOL. 7, NO. 1

SEPTEMBER, 1968

FROM

Autolite



1969 ANNOUNCEMENT ISSUE INCLUDES: • Part Numbers • Specifications • Model Identification • Maintenance Schedules • Service Procedures



FORD TRUCKS

1969 Models &

Ford F-100



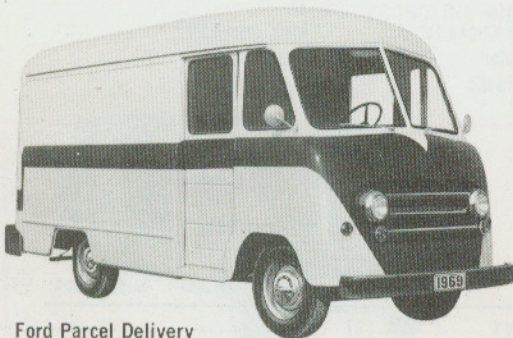
Ford F-250



Ford F-350



Ford Parcel Delivery



GASOLINE ENGINES

| Engine | 240 CID | 300 CID | 360 CID | 390 CID |
|--------------------------|-------------|---------|-----------------|---------|
| Bore (Inches) | 4.00 | 4.00 | 4.05 | 4.05 |
| Stroke (Inches) | 3.28 | 3.98 | 3.50 | 3.786 |
| Taxable (SAE) Horsepower | 38.4 | 38.4 | 51.2 | 52.5 |
| Compression Ratio | 9.2:1 | 8.8:1 | 8.4:1 | 8.6:1 |
| Engine Idle Speed (rpm)① | 500/775⑤ | 600 | 650 | 650 |
| Standard Transm.②④ | | | | |
| Over 6000 GVW (Calif.) | 600 | — | | |
| Automatic Transm.②③④ | 500/775⑤ | 500 | 550 | 550 |
| Over 6000 GVW (Calif.) | 525 | | | |
| Cylinder Firing Order | 1-5-3-6-2-4 | | 1-5-4-2-6-3-7-8 | |
| Spark Plug Number | BTF-42 | BTF-42 | BF-32 | BF-32 |
| Spark Plug Gap | 0.032-0.036 | | | |
| Distributor Point Gap | | | | |
| Imco | 0.027 | 0.027 | 0.021 | 0.021 |
| Non Exhaust Emission | 0.025 | 0.025 | 0.017 | 0.017 |
| Ignition Timing—°BTC① | | | | |
| Non-Exhaust Emission | | | | |
| Standard Transmission | 6°⑤ | 6°⑤ | 6°⑤ | 10°⑤ |
| Automatic Transmission | 10°⑤ | 10°⑤ | 10°⑤ | 10°⑤ |
| Imco | 6° | 6° | 6° | 6° |

① If the individual requirements of the vehicle and/or use of sub-standard fuels dictate the initial timing may have to be retarded from the "Normal" setting to eliminate detonation. If retarding is necessary it should be done progressively and not to exceed 2° B.T.C.

② With headlights ON ③ Transmission in drive

④ Air conditioner operated 20 minutes prior to setting

⑤ Higher idle speed with throttle activator energized

FORD DIESEL ENGINE

| Engine | 4-Cylinder 242 |
|--------------------------------------|----------------|
| Bore (inches) | 4.125 |
| Stroke (inches) | 4.52 |
| Displacement (cubic inches) | 242 |
| Taxable (SAE) Horsepower | 27.2 |
| Horsepower @ rpm—Net | 74 @ 2800 |
| Gross | 82.5 @ 2800 |
| Maximum Torque (ft. lb. @ rpm)—Net | 186 @ 1700 |
| Gross | 186 & 1700 |
| Compression Ratio | 16.5 to 1 |
| Compression Pressure | 363 psi @ 215 |
| Maximum Engine rpm (No Load) | 3090 |
| (Loaded) | 2800 |
| Idle Speed (rpm @ Neutral) Hot | 500-550 |
| Valve Lash Hot (inches)—Intake | .015 |
| —Exhaust | .012 |
| Oil Pressure Hot (psi) | 45-55 |
| Cylinder Firing Order | 1-2-4-3 |
| Air Cleaner—Type | Oil Bath |
| Injection System | |
| Injector Nozzle Opening Pressure psi | 2600-2700 psi |
| Injector Pump Timing | 22° BTDC |
| Belt Tension (New) | 140 lbs. |
| (Reset—After 10 min. operation) | 110 lbs. |

Specifications

SERIES 100 THRU 350, AND P SERIES

FORD TRUCKS

APPROXIMATE REFILL CAPACITIES

(U.S. Measure)

COOLING

| Engine | Truck Model | Approx. Capacity* (Quarts) U.S. Measure |
|--------|--|---|
| 240 | F-100-250—4 x 2 (Manual Transmission) | 13 |
| | (Automatic Transmission) | 14½ |
| | W/Air Conditioning | 17 |
| 240 | F-100-250—4 x 4, F-350 Single Rim Rear Wheels W/Air Conditioning | 12 18½ |
| 240 | F-350 Single Rim Rear Wheels (Automatic Transmission) | 14½ |
| 240 | F-350 Dual Rear Wheels W/Air Conditioning | 17 18½ |
| 240 | P-350-400-500 | 17 |
| 300 | F-100-250—4 x 2, F-100-250—4 x 4, F-350 Single Rim Rear Wheels W/Air Conditioning | 14½ 17 |
| | F-350 Single Rim Rear Wheels (Automatic Transmission) | 17 |
| 300 | F-350 Dual Rear Wheels W/Air Conditioning | 17 18½ |
| 300 | P-350-400-500 | 18 |
| 360 | F-100-250—4 x 2 W/Air Conditioning | 22 22½ |
| 360 | F-100-250—4 x 4, F-350 Single Rim Rear Wheels, F-350 Dual Rear Wheels W/Air Conditioning | 22½ 24 |
| | F-100-250—4 x 2 | 22½ |
| 390 | F-350 Single Rim Rear Wheels, F-350 Dual Rear Wheels W/Air Conditioning | 22½ 24 |

Includes 1 quart for trucks equipped with heater.

CRANKCASE

(Add 1 quart for filter)

| Engine | Quarts |
|--|--------|
| 240 CID 6 Cyl. | 4 |
| 240 CID 6 Cyl. (4 x 4, F-350 and P-Series) | 5 |
| 300 CID 6 Cyl. | 5 |
| 300 CID 6 Cyl. (4 x 4 and P-Series) | 5 |
| 360 & 390 CID V-8 | 5 |
| 242 CID DIESEL (Add 1½ pints for full-flow filter) | 10 |

REAR AXLE

| Rear Axle Model | Truck Model | Pints |
|--------------------------|-------------------------------------|-------|
| Ford 3300 | F-100, P-100 | 6½ |
| Dana 44F (front axle) | 4-Wheel Drive (F-100, F-250) | 3¼ |
| Dana 44F HD (front axle) | 4-Wheel Drive (F-250) | 3¼ |
| Dana 60-3 | F-100 | 6 |
| Dana 60 | F-250, P-350, P-3500 | 6 |
| Dana 70 | F-350, P-350, P-3500, P-400, P-4000 | 6 |
| Rockwell C-100-N | P-500, P-5000 | 13 |
| Rockwell D-100-N | P-500 | 13 |

*Add 1 pint for each steering knuckle.

FUEL TANK

| Tank Type | Truck Model | Gallons |
|---|---|---------|
| Standard | F-Series (Cab Models) | 19.5 |
| Standard | F-100 250 Chassis Windshield, P-Series Chassis, F-350 Series Cowl or Chassis Windshield Models | 17 |
| Optional (mounted outside of frame) | P-350/500 | 30 |
| Optional (mounted under cab) | F-100/350 | 25 |

TRANSMISSION

Transmission Type and Make

Pints

| | |
|--|-----|
| 3-Speed (Ford) | 3½ |
| 3-Speed w/Overdrive (Warner T-85-N) | 4 |
| 3-Speed Medium Duty (Warner T-89-F) | 3¾ |
| 3-Speed Heavy Duty (Warner T-87-G) | 5½ |
| 4-Speed (Warner T-18) | 6½ |
| 4-Speed (New Process 435) | 6½ |
| MXHD Cruise-O-Matic | 22 |
| C-4 Automatic | 20½ |
| C-6 Automatic | 25½ |
| 4-Wheel Drive Transfer Case Single Speed F-100 | 1¼ |
| 4-Wheel Drive Transfer Case 2-Speed F-250 | 4½ |

CIRCUIT PROTECTION

| Circuit | F-100-350 | P-Series |
|--|---|------------------------|
| Tail, Park, License, Marker and Stop Lights | | 12 amp. C.B. ② |
| Tail, Park, License, Marker Lights and Horn | 15 amp. C.B. ② | |
| Dome, Courtesy, Map, Cargo Lights and Cigar Lighter | Models 81, 85 AGW 15 Fuse ① Model 84 | SFE or AGW 7.5 Fuse |
| Turn Signal, Backup Lights and W/S Washer (F-Series Only) | SFE-14 Fuse ① | AGC-10 Fuse ④ |
| W/S Washer Pump | Integral C.B. | AGC-10 Fuse ④ |
| Instrument Panel Lights | AGA-2 Fuse ① | AGA-1 ④ |
| Emergency Warning and Stop (F-Series Only) Lights | SFE-20 or AGA-20 Fuse ① | SFE-14 Fuse ① |
| Headlights | 12 amp. C.B. ② | 12 amp. C.B. ② |
| Heater | AGC or SFE-20 Fuse ① | SFE-14 Fuse ④ |
| W/S Wiper | C.B. ⑤ | C.B. ⑤ |
| Roof Marker Lamps F-350 Stake Platform or Dual Wheels | 25 amp. C.B. | |
| Charging and Gauge Circuit | AGW-4 } Fuse ① 7AG J | |
| Overdrive Transmission | AGC-15 Fuse ③ | |
| Fuel System (Dorset Diesel) | | 6 amp. C.B. |

① Fuse Panel

② Integral with Headlamp Switch

③ Clip on O.D. Relay

④ Cartridge in Feed Wire

⑤ Integral with Switch

NOTE: DO NOT exceed 8.5 amp. load across ignition switch for rear light circuit on trucks or buses with hydraulic stop light switch.

LIGHTS (12 VOLTS)

| Description | Candle Power or Wattage | Lamp Number |
|-------------------------------------|----------------------------|----------------|
| Cigarette Lighter Socket | 1.5 c.p. | 1445 |
| Dome Light | 1.5 c.p. | 1004 |
| Front Parking Only | 4 p.c. | 97 |
| Front Turn Signal/Parking | 32-3 c.p. | 1157 |
| Heater Control | 2 c.p. | 1895 |
| Alternator Indicator | 2 c.p. | 1895 |
| Headlights Single—High/Low Beam | 50/40 Watts | 6012 |
| Instrument Cluster Illumination | 2 c.p. | 1895 |
| Instrument Panel Indicators—Hi-Beam | 2 c.p. | 1895 |
| Marker | 4 c.p. | 97 |
| Oil Pressure | 2 c.p. | 1895 |
| Radio Dial | 2 c.p. | 1895 |
| Rear License Light Only | 4 c.p. | 97 |
| Rear Turn Signal & Stop/Tail | 32-3 c.p. | 1157 |
| Spotlight Par 46 | 30 Watts | 4435 |
| Spotlight Par 36 | 30 Watts | 4405 |
| Rear or Front Turn Signal only | 32 c.p. | 1156 |
| Fog Lights, Amber | 35 Watts | 4415A |
| Fog Light Switch | 1 c.p. | 53X |
| Turn Signal Indicator | 2 c.p. | 1895 |
| Brake Warning Light | 1.5 c.p. | 1445 |